

DOCUMENT RESUME

ED 106 177

SO 008 266

AUTHOR Anapol, Malthon H.
TITLE An Analysis of the Verdicts and Decision-Making Variables of Simulated Juries.
PUB DATE Dec 74
NOTE 28p.; Paper presented at the Annual Speech Communication Association Convention (60th, Chicago, Illinois, 27-30 December 1974)
EDRS PRICE MF-\$0.76 HC-\$1.95 PLUS POSTAGE
DESCRIPTORS *Conflict Resolution; *Court Cases; Court Litigation; Courts; Credibility; *Decision Making; Educational Research; Higher Education; Justice; *Law Instruction; Lawyers; *Simulation; Social Relations; Social Studies

ABSTRACT

In order to examine jury deliberations, researchers simulated and videotaped court proceedings and jury deliberations based upon an actual civil court case. Special care was taken to make the simulated trial as authentic as the original trial. College students and the general public provided the jurors, which were then divided into twelve separate juries and provided with various kinds and amounts of information and instructions concerning their role as a jury. Results indicate that six-man juries do not differ in any significant way from twelve-man juries. A jury watching a videotape trial will arrive at a verdict similar to a jury watching an actual trial. There is a tendency for juries to consider the cost of living in awarding damages to the plaintiff. College student jurors return verdicts similar to non-student jurors. Lawyer and witness credibility, appearance, and personality influence jury decision-making. There is a consistency in the decision-making process among juries. When an individual holdout occurs, he is persuaded to join the majority through a one-to-one discussion with the other jurors. Overall, juries tend to make rational decisions based upon the witnesses, exhibits, and the arguments of the attorneys. (Author/DE)

ED106177

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**AN ANALYSIS OF THE VERDICTS AND
DECISION-MAKING VARIABLES OF SIMULATED JURIES**

**Malthon M. Anapol
University of Delaware**

**Paper presented at the 60th Annual Speech Communication Association
Convention, Chicago, Illinois, December 27-30, 1974**

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The research report that follows was funded by University of Delaware Faculty Research Grant 1-7-09-3910-42. The writer wishes to express his appreciation to the University of Delaware Faculty Research Committee for this support. Dean Olaf P. Bergelin and his associate Mr. Morton Cooper were also especially helpful with assistance in solving some of the administrative problems connected with the project.

The case used in this study was originally tried by Paul R. Anapol, Esquire, of the Philadelphia Law firm of Ettinger, Poserina, Silverman, Dubin, Anapol & Sagot who were kind enough to make the trial transcripts available to us. The original trial jury awarded Mr. Anapol's client \$489,000. This figure should be compared to the awards of our experimental juries.

We hope to continue our research in this area and we are preparing an application for funding to the National Science Foundation.

AN ANALYSIS OF THE VERDICTS AND DECISION-MAKING VARIABLES OF SIMULATED JURIES

One of the distinctive features of the Anglo-American jury system has been the absolute confidentiality of the deliberations of the jury. A previous study of jury deliberations received in the words of its authors "a Purple Heart" when an attempt was made to audio tape the deliberations of the juries in five civil trials in Kansas (Kalven and Zeisel, 1966). The result has been that juries have felt free to go about their task secure in the knowledge that nothing would ever be known about their jury room behavior except the publicly announced verdict. A persuasive case can be made that this careful preservation of the sanctity of the events of the jury room has contributed to the independence of the trial jury, but at the same time we have been left almost totally ignorant of how juries function.

Kalven and Zeisel, 1966, having been barred from the jury room were forced to rely on interviews with jurors and judges conducted some time after the actual trial, hence The American Jury was really a study of the post-trial impressions of jurors rather than a study of jury deliberation. In a thorough review of jury research in America (Erlanger, 1970) points out:

Any further research along the lines suggested here will have to face the problem of collection of data. Jury bugging is, of course, not legal (Kalven and Zeisel, 1966: ch. 1). However, it seems that the solution adopted by Strodtbeck and Simon is quite workable. A jury drawn from a "real" venire, instructed by a judge, and listening to tapes in a court environment, is probably a good simulation of the real thing. The additional advantage, of course, is that different juries can try the same case. (The disadvantage of hearing, rather than seeing, the trial can perhaps be remedied through the use of video tapes.) The attitudinal and social data, as well as information about thoughts during the trial and deliberations, can be elicited through questionnaires.

As noted above, many of the studies not associated with the Chicago Project are based on experiments with college students. These are helpful in a preliminary way, especially insofar as they indicate the difficulties that even educated persons have in understanding a trial or following instructions. However, it seems that their basic contribution has been made, and that future study should concentrate on approximations to real juries.

This study has been designed to avoid the pitfalls of jury research alluded to by Erlanger above. Just what happens in the jury room has been a question of interest to lawyers and social scientists and has led to numerous attempts to study juries by lawyers (Kalven and Zeissel, 1966; James, 1951), by sociologists (Simon, 1967; Erlanger, 1970; Strodtbeck, 1962) and occasionally by psychologists (Hovland, Kelly, and Janis, 1957; Broeder, 1959; and Kaplan and Simon, 1972).

During approximately the same time period small group theory and research was being developed by social psychologists and communication researchers. A brief list of the leaders of this activity would include psychologists (Cartwright and Zander, 1968; Guetzkow and Collins, 1964) and communication researchers (Cathcart and Samovar, 1970; Fest and Harnack, 1968; Stattler and Miller, 1968; Barnlund, 1968). Although these two groups were working at about the same time and often publishing in the same journals, a perusal of the research indicates that neither group was familiar with the work of the other. Therefore one facet of this study was to examine aspects of small group theory in terms of the functioning of the civil trial jury. We chose four areas of interest to small group researchers for investigation. They were: group size, training in the process of small-group decision-making, the perceived effects of jury members on each other, and the role of the foreman of the jury as a group leader.

An area in which there has been a discrepancy between theory and research findings has been the position of communication and psychology researchers that the jury perception of the attorney is a critical factor in the outcome of the trial, and the view of legal theorists and researchers that attorney credibility is at best a minor factor in the decision of the jury. Psychologists (Weld and Danzig, 1940; Hoffman and Brodley, 1952) and communication researchers (Anderson and Clevenger, 1963; Greenberg and Miller, 1966) have found that credibility or ethos is a significant factor in both attorney and non-attorney communication. Andersen and Clevenger conclude that: (1963, p. 77)

The finding is almost universal that the ethos of the source is related in some way to the impact of the message. This generalization

applies not only to political, social, religious, and economic issues but also to matters of aesthetic judgment and personal taste.

On the other hand Kalven and Zeisel (1966, p. 115) found that only 2% to 4% of the cases that they studied had verdicts that were influenced by the attorney arguing the case. This theme, that it is the facts and the law, not the attorney which influences the outcome of the case is recurrent in legal theorists' discussions of the role of the attorney in the trial, even though it directly contradicts the previously cited findings. Kaplan (1967) has suggested, however, that the Kalven and Zeisel (1966) data ought not to be taken seriously due to the mitigating effects of a limited data base and difficulties with interpretations of questions about attorneys. But it is also fair to point out that none of the communication research has been in the context of an actual trial situation. Therefore this study will attempt to deal with the question of the role of attorney credibility within the trial and jury context.

One major problem with much trial and jury research has been a lack of ecological validity (Anapol and Hurt, 1972), that is, the research has not been conducted within the constraints and conditions of the courtroom situation. The use of the real courtroom and the real jury is not legal in most jurisdictions and Kalven and Zeisel (1966) were threatened with a contempt citation and a possible jail sentence when they sought to go behind the locked doors of the jury room with a tape recorder. As a result their study was based upon the method of post trial interviews with jury members and judges. Other researchers (Simor, 1967) have made audio tape recordings of a simulated trial, but the most often used method has been a written summary of a trial (Stone, 1969; Hovland, Kelley, and Janis, 1957; Kaplan and Simon, 1972). These designs have departed from the concept of ecological validity in important ways: the interaction involved in a jury decision-making process is lost when the jury does not function as a group and individual decisions are made; significant channels of communication are lost when the visual and/or audio aspects of the trial are eliminated; the personality characteristics of lawyers and witnesses are not readily transferred to paper; and the loss of the courtroom atmosphere brings about a different set and a different attitude toward the task of jury decision-making.

For the foregoing reasons this study is designed to duplicate as closely as possible the real trial situation and thus assure a reasonable measure of ecological validity. The result of this decision has been to impose certain problems and constraints on the study which make it difficult to completely conform to the ideal of a controlled laboratory experiment. For example, each decision by a twelve man jury becomes a single response rather than twelve individual responses thus making the application of inferential statistical analyses more

difficult because of the smaller numbers involved. Consequently, much of the data will be considered from a descriptive rather than a predictive viewpoint.

Method

After consultation with area trial lawyers a decision was made to utilize a civil trial for the following reasons: Rather than a simple guilty-not guilty verdict an infinitely variable decision would be possible if the jury found for the plaintiff and had to decide on a sum of money to award as damages; civil trials receive less publicity and press coverage and the jury would be less likely to have heard about the case chosen; the issues are less likely to be emotional ones and thus the probability of rational decision-making is more likely. The civil trial chosen was recreated on video tape with a running time of about five hours.

In recreating the trial, one of the original lawyers and several of the original witnesses were used. Where replacements were necessary, people with suitable technical backgrounds were used; i.e., a replacement engineer was a professor of engineering, an experienced trial lawyer was used, a local judge served as judge, etc. While the trial was taped in the University of Delaware television studio an authentic court room set was erected and every effort was made to preserve the court atmosphere. Four vidicon cameras were used; they were put in the position of the jury box and all activity was directed to them. Special effects were avoided and all attempts were made to record the trial in a straightforward way.

The case utilized concerned an iron worker who was injured when the steel bar joist roofing base he was working collapsed sending him twenty feet to the ground and resulting in severe back and spinal injuries. At the time of the trial, he was still suffering considerable pain and had regained only partial use of his body. A basic issue in the case was the cause of the collapse of the bar joists. The plaintiff argued that the joists were not properly fabricated and welded by the manufacturer and thus the manufacturer was liable under the legal doctrine of product warranty.

The defense maintained that the joists collapsed because they were not properly positioned and spot welded before decking for the roof was placed upon the joists. If this view prevailed, the manufacturer would not be liable for damages. If the jury decided for the plaintiff, it would also have to award damages based on actual out-of-pocket losses, reduction of future earnings because of the accident, and compensation for pain and suffering. All of the exhibits used in the original trial which included photographs of the accident site,

samples of the collapsed joists, medical bills, etc. were available for the taping and were given to the jurors to take with them into the jury room. In the actual trial the jury found for the plaintiff and awarded him damages of \$489,000, but this information was not revealed to the experimental juries.

Two types of subjects were used. College students who were undergraduates enrolled in Speech Communication courses were utilized in a limited number of juries in order to evaluate the potential of students as jurors in real trials. Most of the other jurors were recruited from the general public and were persons who had served on a real jury within the past four years; several were serving on current juries but were available on a Saturday to participate in this project. All of the jurors were paid \$10.00 and provided with lunch as a group in order to avoid any outside "contamination." The jurors were told that they were participating in a study of juries, but given no other information. They filled out various information forms and all of the deliberations were video taped with portable Sony equipment. The trial was divided into five one-hour segments plus a fifteen-minute charge from the judge. Based on the experience of Gunther (1972) with the taping of real trials in Ohio, a five-minute break was given at the end of each one-hour segment. A lunch break of forty-five minutes was given after three segments.

The manipulation of some of the variables was relatively simple to execute. For example, two juries were simply asked to take notes and provided with pencils and yellow legal pads; another was supplied with a mimeographed copy of the instructions of the judge to the jury. Another jury was not shown that segment of the trial containing the summaries of the attorneys. Those juries with training in group discussion were recruited from undergraduate and extension classes in group discussion and were about three-fourths of the way through the course when they participated in the project.

In the credibility manipulation situation, the jury was given written materials explaining that since they would not meet the attorneys in the interviewing of the jury (voir dire proceedings), some background was being provided in written form. This material was used to develop credibility and concerned such items as schools attended, i.e., Yale and Harvard for high prestige, reputation of law firm, experience of attorney, record of winning cases, public service activity of attorney, publication of articles and books on the subject of the trial, etc. Low prestige or credibility was indicated by citing a lack of these items and by listing a low prestige local law school for one of the attorneys. As a check on the success of the manipulation of credibility, the jurors were asked to select one of the two attorneys they would prefer to engage to represent them in a court action. They were further

asked to disregard all considerations of cost or availability.

In order to study juror perception of the attorney and the other factors in the trial, the jurors were also asked to rank a group of items in order of importance to them in making a decision in the case. They also indicated their degree of certainty on each item. The lawyer choice was made three times, before viewing the trial, after viewing the trial, and after deliberating. The other items were considered only after viewing the trial and after deliberating; this was done to avoid encouraging a pre-trial "set" by the jurors.

While it was necessary to make up juries from those persons available on given trial dates, all variables were assigned by random selection whenever possible. Obviously, the jury trained in group discussion could not be randomly assigned. All juries were balanced in regard to demographic factors in so far as this was possible, almost all of the juries contained both male and females, blacks and whites, and older people and younger people, except for the student juries where the age range was 17 to 24.

Results and Discussion

The results of this project can be examined in two ways; through the quantification of the data, and through observation of the twelve videotapes of jury deliberation. We shall begin with the observation of the tapes which constitute approximately twelve hours of juries in action making decisions. We must keep in mind that these are simulated juries all dealing with the same civil trial, but it is also true that these tapes represent the best sample of a realistic jury in action presently available. Within these limitations we will try to draw out such generalizations as seem reasonable in terms of the tapes and the data.

First, there is a remarkable consistency in the way the juries approach the problem of deciding the case. In each instance the jury first decided liability and then took up the problem of damages. At times an individual juror wanted to consider a matter out of turn but the majority soon got the jury back to the general plan of liability first and then consideration of damages. Each jury tried to reconstruct for itself the events of the case and based its decision on liability on this reconstruction.

In this reconstruction phase the jury made much use of the exhibits, examining pictures, handling pieces of the collapsed bar joists, and drawing diagrams of the accident on a

blackboard or a legal pad. In general the jury was much better organized than we might have expected it to be.

Second, this consistency extended to the way in which the jury dealt with holdouts. If there was a single holdout the jury tended to work on the holdout but on a one juror at a time basis until the holdout joined the majority. In the case of two or three holdouts, the jury tended to break up into small groups with three or four jurors each working on a single holdout. This procedure seems to be effective, possibly because each holdout feels isolated and alone in his recalcitrance. It never seemed to occur to the holdouts to band together and go to work on one or two from the other side.

Third, the degree of conviction the jury feels about its decision seems to have an impact on the amount of money awarded. Where the jury was strongly positive about its decision on liability it tended to award more money to the plaintiff. This was especially true in the two note-taking juries which were specifically asked why they awarded larger than average sums (see Table 1 for awards). The note-taking juries were very positive about their decision and could and did refer to their notes to back up this position. This observation suggests that you really need not be concerned about over-convincing a jury since greater conviction may well result in a higher damage award.

Fourth, in this case at least the juries were mostly logical and rational, but they were influenced by some emotional arguments and ploys. The jury did pay careful attention to the facts in the case, an observation supported by examining the notes of the jurors who took notes. In the more typical no note taking allowed situation, the jurors did remarkably well in reconstructing the case by means of a synthesis with each juror contributing some items recalled or correcting the recall of others. This process is surprisingly rational and logical, but emotional arguments did play a role in making the decision. The most effective and recurring emotional argument in this case involved the tactics of the plaintiff's attorney in discrediting the defense expert witness by asking the witness how much he was paid for his testimony. The expert explained that he was paid for his time not his testimony but being under "oath" did admit that he was being paid \$300 per day for his time; subsequently the juries made much of this point never considering that the plaintiff's experts were probably paid comparable sums. On the other hand, obvious attempts to gain sympathy for the injured plaintiff were ignored by the juries.

Fifth, credibility is an important consideration. The juries frequently discussed the believability of the witnesses and the attorneys. They considered the possible motives of

the witnesses in testifying. They tended to believe the fellow ironworkers of the plaintiff who testified as eyewitnesses of the accident but considered that the ironworkers were probably all friends who would tend to help each other out. As mentioned in the preceeding discussion they concluded that the defense expert had to be regarded with suspicion since he admitted being paid \$300 per day, but they felt that the plaintiff experts were "just concerned with bringing the truth out." It would appear that this judgment was based on three factors: the plaintiff used three experts who tended to support each other and were thorough in backing up their testimony; while the defense used only one uncorroborated expert. The plaintiff used a physician who was accorded considerable respect by the juries; the defense did not bring in a physician since they had no clear need to and did not consider the prestige a physician might lend its case. The jury tended to like the plaintiff's witnesses better. One was in his late sixties and one was young and attractive to women jurors; in contrast the lone defense expert was middle-aged and an abrasive personality. It seems clear that juries are influenced by the personality, likeableness, and credibility of the witnesses.

Sixth, the six-man jury seemed to be equal to and often superior to the traditional twelve-man jury. The smaller jury seems more free from repetition and wasted motion than the larger jury. It seems to work more efficiently and smoothly than the twelve-man jury. In all of the juries there was a remarkable absence of the status problems which often serve to side track other decision-making groups. We are inclined to attribute this condition to the fact that the jurors rarely are acquainted with the other members of the group. In general all juries stay on the task problems, but the smaller juries are even better in this respect.

Seventh, in about half of the juries there was a tendency to try the lawyers as well as the case. In this study there did not seem to be a situation in which the case was decided solely on the trying of the rival lawyers, but in several instances the jurors did discuss the attorneys and their reaction to them. Among the items of a personal nature about the attorneys which the juries discussed were personal appearance, clothes and neatness; hair, hairstyle, and the lack of hair; facial expression, smile, and voice; language, vocabulary, and mannerisms; preparation and lack of preparation of the case; personal manner, style, and politeness toward witnesses. It is our judgment that any influence resulting from the trying of the lawyers was reflected in the sum of money awarded by the jury, a concept which will be discussed in greater detail in the examination of the results of credibility manipulations.

Frequently the jury discussed the fee of the attorney and the need to allow for this in setting the final damage award. Few of the jurors had specific information or knowledge

about the size of the fee and they estimated it at about ten to twenty per cent of the total sum awarded. The juries frequently asked if the plaintiff would have to pay income taxes on the damages awarded. Since most jurisdictions do not permit direct answers by the court to such questions, it seems advisable for bar associations to attempt to educate the general public about the answers to these questions. Lawyers should consider the tendency for some juries to try them as individuals along with the case they are presenting. We will turn next to an examination of the tables and the quantitative data.

Since the data in Tables 1 and 2 are greatly inter-related, we will discuss them together. We can observe in Table 2 that the median sum awarded when there was no manipulation of attorney credibility or taking of notes was \$600,000. We can regard this as our equivalent to the award of the actual trial jury which found for the plaintiff in the sum of \$489,000. In comparing these two verdicts we should consider that four years' time had elapsed between the original trial and our first simulated jury. During the four year period of 1968 to 1972 the consumer price index rose by 20.24%; if we add that percentage increase to the original verdict we get a sum of \$588,300 or almost exactly the median figure of \$600,000 previously noted. That suggests two points that merit some discussion.

We can regard \$600,000 as the equivalent four years later of the original verdict and examine all of our other verdicts with that figure as a point of reference. Furthermore, it would appear that our simulated juries which were not manipulated and did not take notes arrived at a verdict fairly comparable to that of the real trial jury. This suggests that a jury deliberating from a videotaped trial rather than a live trial will react in much the same way as a jury deliberating from a live trial. This finding is in agreement with Miller (1974) who concluded that:

When compared to their counterparts who participate in a live trial, jurors who view a videotaped trial arrive at similar judgments, have similar perceptions of the trial participants, retain as much of the trial-related information, and express similar levels of interest and motivation concerning the task of serving as jurors.

We can also infer that a four year delay in going to trial which is not uncommon in metropolitan areas may subject the defense to the effects of inflation when the final award of the jury is made. While more research is needed on this point, the evidence seems convincing in light of jury discussion of the cost of living for the plaintiff and the intention of several of the juries to leave the plaintiff in a financial

position similiar to the one he was in prior to the accident.

The two juries with training in group discussion came in with verdicts which were at or close to the median for non-manipulated juries. This suggests that group discussion training did not have any great impact on the outcome of the deliberations, but we can also note that these two juries spent more time deliberating than any of the other juries. We might expect that a jury which has had training in the systematic examination of a problem would take more time and be more cautious in reaching a verdict. We would conclude that group discussion training could produce a more thorough and careful jury and that such a jury would be desirable in a complex or difficult case.

There has been considerable speculation concerning just how well the jury comprehends and follows judges instructions. In this case the judge's instructions were relatively brief running about 1200 words and dealing mainly with the law of product warranty. As can be observed, when we gave the jury a written copy of the instructions in addition to the videotaped instructions of the judge, we got a verdict which was precisely on the median for non-manipulated juries. In other juries the jury members seemed to comprehend the instructions reasonably well and made a serious effort to follow the instructions. However, they frequently asked questions about the specific wording of the charge to the jury. Since the judge was not present to answer questions, we did read relevant portions of the charge in order to answer jury questions without offering any interpretation of the judge's instructions. Our experience with this project suggests that it would be an improvement in trial practice to provide each member of the jury with a copy of the charge to the jury. In this era of readily available high speed duplicating machines such a change in trial procedure should not be difficult to accomplish.

As a direct result of jury complaints that the attorney summaries or closings were too long and not all that useful, we decided to experiment with omission of the summaries. The results were again exactly on the median point of a \$600,000 award. This would infer that the closing argument is somewhat less important than most attorneys have considered it to be. However, we need to consider this result in light of the fact that our juries were viewing the trial in one day over an approximately seven hour period including a lunch break. Our original trial had run over a four day period and most trials do run two or more days. It is our hypothesis that as the trial extends over longer periods of time the summaries become more and more important, but attorneys should realize that they attach more value to the closing arguments than the jury does. It should also be noted that Table 6 indicates that attorney summaries ranked 9th before deliberations and 7th after deliberations.

Despite extensive research we were unable to discover the origin of the almost universal rule against note-taking by jurors. We can speculate that it stems from a period when literacy was not common and a fear that if one or two jurors were able to take notes they would wield disproportionate power among the illiterate jurors. Hence we decided to examine the outcome of note-taking by jurors and we found two things. In both cases the verdicts were high, \$850,000 and \$800,000 in comparison to the median verdict of \$600,000 and in both cases the jury was able to decide liability in about ten minutes and was quite certain about that decision. In both cases the remaining deliberation time was spent on setting damages and in both cases there was a high degree of agreement among the jurors. That high agreement in part explains the higher awards; in most juries there are high award jurors and low award jurors and the final sum awarded is a compromise between the two groups. In the note-taking juries there were no low award jurors to bring down the verdict.

Because of the unusually high verdicts in the note-taking situation we went a step further and explained to each such jury that its verdict was higher than usual and asked them after they had completed deliberations to try to tell us why they had arrived at a high award. The responses suggested that the events of the trial were more vivid and more clear because of the note-taking and that this explained the outcome. We consider this to be a reasonable explanation, but would also add the high degree of agreement within the jury as a significant factor. We also conclude that more research is needed on the effects of note-taking.

Because questions have been raised about the validity of using students in jury research we decided to compare the results of the college student juries with the adult non-student juries. Making use of chi square analysis and Fisher's Exact Test (Finney, 1948) we found that the differences between the verdicts of the two types of juries were not statistically significant. This suggests that student verdicts are basically equivalent to adult jury verdicts. The same analysis was applied to the differences between six-man and twelve-man juries and again no significant difference was observed in awards made by the juries. This finding supports the current trend toward the smaller jury and indicates that smaller juries save deliberation time as well as manpower while producing verdicts which are not significantly different from those of usual twelve-man jury. The data discussed here will be found in Tables 1 and 2. This result is also consistent with the position of small group communication researchers who have uniformly maintained that a group of five to seven persons is the most efficient size for a decision-making group.

The final area developed in Tables 1 and 2 which we wish to discuss is the complex variable of credibility. As outlined

in the introduction to this study this was a major area of disagreement between legal and communication researchers. Table 2 indicates a difference of well over \$100,000 between a high credibility condition for the plaintiff's attorney and a low credibility condition; the same difference holds true for a no credibility manipulation for the attorneys. These differences were also analyzed by chi square and Fisher's Exact Test and we found that the probability that these differences were the result of chance alone was less than 5 in 100 ($P < .05$). While we must admit that not all sources of extraneous variance were controlled because of the design of the study, the sum involved \$100,000 or about 20% more money awarded, and the agreement with previous credibility research appear convincing.

It should be noted that in this trial situation the effects of credibility did not succeed in reversing the verdict, but there is a significant effect on the size of the award made by the jury to the plaintiff. In a close or even a closer case it seems reasonable to suggest that the effects of attorney credibility could affect the outcome of the case. In any event it appears that a higher fee paid to a high prestige attorney or law firm would be a good investment and could be expected to pay dividends in a larger cash award.

Most experienced attorneys would admit that credibility or prestige does play a role in the settlement of negotiated cases. That is, a high credibility attorney with a record of winning large awards will be able to secure a larger negotiated settlement from an insurance company than an unknown or low prestige lawyer. A related situation, the outcome of a high prestige prosecutor opposing a low prestige assistant public defender is a problem which needs researching.

Table 3 presents the results of a credibility manipulation check. The jury was asked to select one of the two attorneys as their individual choice to represent them in a similar case; this was done both before and after viewing the videotape of the trial. The data indicates that the credibility material was effective in that almost all of the jurors chose the high credibility attorney before viewing the trial. We interviewed the few jurors who did not conform to the pattern and their reasons were again related to credibility, but these individuals were operating from different bases than the majority. Most of the non-conforming selections of the defense attorney were based on two reasons; many jurors felt that a big iron and steel company would have the best lawyer in the case and chose the defense attorney on that basis ignoring our low credibility description; other choices were based on the desire to have a local attorney rather than the out of town lawyer for the plaintiff.

Those who made non-conforming choices of the plaintiff attorney reported that they always rooted for the underdog and preferred a lawyer who worked for the little guy. Selection of

attorney after the trial indicates that the jurors felt that the plaintiff attorney did a better job and that the selection at that point was based on individual judgment. The few non-conforming selections were people who were holding out after a pretrial non-conforming selection. This pattern raises a question; why did credibility material affect the sum awarded if it did not apparently affect attorney selection after viewing the trial? Our hypothesis is that the prestige or credibility material affected perception of the trial but did not affect perception of the individual attorney enough to reverse a selection based on performance. Our attempt to endow the defense lawyer with high credibility resulted in high pretrial selection of him, but in a median verdict after viewing the trial. Hence, our conclusion is that high credibility can enhance an adequate or better than adequate performance but it cannot overcome a losing effort by an attorney. In examining the factors by which the jury makes its decision we will again consider the role of credibility in jury decision making.

Tables 4, 5, and 6 deal with jury rankings of factors involved in jury decision making. We were not particularly concerned here with a before and after deliberation comparison and therefore we decided to include two items in the post-deliberation question form which could not reasonably be included in the pre-deliberation form. These two items were the influence of the jury foreman and the influence of the other jurors. Obtaining data about these two items seemed to us more important than preserving the balance of the forms in order to facilitate analysis of the before and after deliberation trends. Three general statements can be made about Tables 4, 5, and 6. First, the higher or more important a factor of deliberation was ranked the more certain the jurors seemed of their selection. As the lower ranking items were decided upon the jurors became less certain of their selection. Second, the ranking of the items is relatively stable from jury to jury both before and after deliberations and, again, the stability is greater for the higher ranking items than for the lower ranking items. This finding is related to our first general observation.

Third, there was a statistically significant relationship between the credibility manipulations and the jury ranking of decision factors prior to the deliberations. This means that when we examined the ranking of decision-making factors for those juries which were exposed to either high or low credibility factors for either the defense or plaintiff's attorneys we found that there was less than one possibility in one hundred that the rankings were due to chance selection. This analysis was made by means of the Friedman statistic as set forth by Winner (1971) and by chi square analysis. The chi square obtained for the ranks (11 degrees freedom) was 31.264 /significant beyond .001 level/ indicating that the credibility manipulations did produce significant differences in the ranking of the deliberations factors by the jurors. This can be seen

most clearly in Table 5, and especially in the rankings of the lawyer personality and lawyer argument items. The arguments of the plaintiff's lawyer vary in rank from first to sixth, while those of the defense lawyer vary from sixth to twelfth position. But then we would expect that subjective rankings influenced by credibility would manifest themselves most in the personality and argument areas. In other words in these areas jurors tend to see exactly what they expect to see, but there is a dramatic exception to this general statement.

The personality of the defense lawyer as well as his arguments received higher rankings from the jury under low credibility conditions than under high credibility conditions. The explanation as expressed by the jurors themselves is that they were disappointed in the performance of the defense lawyer after the big build up they had been given regarding the defense lawyer. This suggests that credibility can be a two-edged sword for the attorney; it can enhance jury perception of a job well done, but can lead to jury rejection of a highly regarded attorney who turns in an inferior performance.

As might be expected in a situation where twelve juries have decided for the plaintiff, the top four factors were the plaintiff's experts, eyewitnesses, exhibits, and arguments. This would indicate that the juries made reasonable and rational decisions and this conclusion is confirmed by observation of the jury tapes. Clearly every ethical attorney seeks a jury decision based on the witnesses, exhibits, and arguments. However, there may be some surprise at the according of first place to expert witnesses since many attorneys tend to downgrade the role of the expert witness. Yet inter-collegiate debaters have long relied heavily on expert witness evidence as the basis of their argumentative efforts.

The four lowest ranking factors were the defense exhibits, which were non-existent, the jury foreman, the other jurors, and the instructions of the judge. The low ranking of the influence of the other jurors may be seen as surprising, but may well be due to the lack of severe disagreement in most of our juries. In the one instance where we deliberately set up a divided jury by means of credibility manipulation, the ranking of influence of the other jurors rose to 5.5 thus supporting this hypothesis.

While we did know from observation of the jury deliberation tapes that the juries understood the instructions of the judge reasonably well and did try to apply them, we can also observe that they did not regard the role of the judge as a high ranking factor in making a decision. This may be because this was not an especially complex case in terms of the law involved. We turn next to the three deliberation factors we have not yet discussed.

The testimony of the plaintiff's physician received the surprisingly high rankings of fifth and sixth considering the fact that it was routine testimony relating to the nature and extent of the injuries to the plaintiff. The testimony was sufficiently routine that the defense did not call its own physician. Why then was this testimony ranked about in the middle in importance? We think it relates to the general high level of prestige accorded to the physician in our society. As we have previously mentioned the credibility of the defense expert was damaged by the cross-examination of the plaintiff's attorney and we consider that to be the explanation for his lower ranking than the plaintiff's experts. We also alluded earlier to the lack of importance attached to the lawyer's final arguments by the jurors.

The one problem which arises here is the generalizability of our findings to other trials and other types of trials. We think these findings may be useful in understanding how civil juries work, but we are dubious about how much they would apply to criminal cases. The obvious approach to this problem is additional research with varying types of cases.

Conclusion

It seems clear that this study demonstrates the utility of the method employed: the recreation on videotape of a court trial as a vehicle for the study of jury decision-making. It is also clear that a trial and the decision by a jury that results from the trial is a complex set of events and that much remains to be probed and studied. There are, however, a few conclusions that can be put forth as a result of this project.

The six-man jury does not differ in any significant way from the twelve man jury. A jury watching a videotaped trial will arrive at a verdict not significantly different from a jury watching an actual trial. There is a tendency for the jury to consider the cost of living in awarding damages to a plaintiff and long term delays can result in an inflation of the damages awarded in an amount roughly equal to the inflation in the consumer price index. In general, college student jurors return verdicts which do not differ significantly from verdicts returned by non-students who have had recent experience as jurors on real juries.

This study tends to support certain findings and theories of communication researchers. This is seen in the area of group size, the effects of credibility on receivers, and the effects of training in theories of group communication on group members. We have further observed that credibility manipulation of attorneys affects the damages awarded and the ranking of the

factors of decision-making by the jurors. But above all we can conclude that our view of the inside of the jury room indicates that juries tend to make rational decisions based primarily on the witnesses, the exhibits, and the arguments.

TABLE 1

VARIABLES, JURY SIZE, LENGTH OF DELIBERATIONS, AND SUM AWARDED

Variable	Jury Size	Length of Deliberations	Sum Awarded	Make Up of Jury
Jury had training in discussion procedures	12	110 minutes	\$658,000	Adults
Jury had training in discussion procedures	6	60 minutes	\$600,000	Adults
Jury given written copy of Judge's instructions	6	50 minutes	\$600,000	Students
Jury took notes during trial	6	45 minutes	\$850,000	Students
Attorney summing up of cases omitted	6	50 minutes	\$600,000	Students
High Credibility Defense, Low Credibility Plaintiff	12	45 minutes	\$600,000	Adults
Low Credibility Defense, High Credibility Plaintiff	12	42 minutes	\$727,000	Adults
Low Credibility for both attorneys	12	25 minutes	\$500,000	Adults
Low Credibility Defense, High Credibility Plaintiff	6	45 minutes	\$750,000	Adults
Credibility Divided (1/2 High Credibility Plaintiff, Low Defense and 1/2 low Credibility Plaintiff, High Defense)	12	85 minutes	\$725,000	Adults
Jury took notes during trial	12	35 minutes	\$800,000	Adults
High Credibility both Attorneys	6	40 minutes	\$750,000	Students

Note: Students are college undergraduates. Adults are almost all persons who had served on a jury within five years of date of participation in the study. About 10% of the adult jurors were part-time extension students who had jury experience.

TABLE 2
MEDIAN, MEANS AND MODES FOR VARIOUS VERDICTS

Variable	N of Juries	Money Awarded			Level of Significance
		Median	Mean	Mode	
None (all juries included)	12	\$693,000	\$680,000	\$600,000	-----
Adult Jurors	8	\$655,000	\$670,000	\$600,000	None
Student Jurors	4	\$725,000	\$700,000	\$600,000	None
Twelve Man Jury	6	\$663,500	\$668,000	\$600,000	None
Six Man Jury	6	\$662,500	\$691,000	\$600,000	None
High Credibility for Plaintiff Attorney	4	\$739,500	\$738,000	\$750,000	(P < .05)
Low Credibility for Plaintiff Attorney	3	\$600,000	\$608,000	-----	(P < .05)
No Manipulation of Attorney Credibility	4	\$600,000	\$614,500	\$600,000	(P < .05)

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TABLE 3
ATTORNEY SELECTION BY INDIVIDUAL JURORS UNDER VARYING CREDIBILITY CONDITIONS

Attorney (Defense or Plaintiff)	Credibility Condition Utilized	Number of Jurors Selecting Each Attorney		
		Before Viewing the Trial	After Viewing	After Deliberation
Defense Lawyer	High Defense-Low Plaintiff	11 (1.6)	1 (2.0)	1 (2.0)
Plaintiff Lawyer	High Defense-Low Plaintiff	1 (2.0)	11 (1.5)	11 (2.1)
Defense Lawyer	Low Defense-High Plaintiff	1 (2.0)	1 (1.0)	1 (3.0)
Plaintiff Lawyer	Low Defense-High Plaintiff	11 (1.7)	11 (1.4)	11 (1.3)
Defense Lawyer	Low Defense-Low Plaintiff	7 (3.5)	1 (3.0)	1 (3.0)
Plaintiff Lawyer	Low Defense-Low Plaintiff	5 (2.6)	11 (1.3)	11 (1.3)
Defense Lawyer	High Defense-High Plaintiff	3 (1.5)	0 ---	0 ---
Plaintiff Lawyer	High Defense-High Plaintiff	3 (1.6)	6 (1.3)	6 (1.3)
Defense Lawyer	None	5 (2.9)	1 (2.0)	1 (2.0)
Plaintiff Lawyer	None	7 (2.8)	11 (1.3)	11 (1.2)
Defense Lawyer	Low Defense-High Plaintiff	0 ---	0 ---	0 ---
Plaintiff Lawyer	Low Defense-High Plaintiff	6 (1.6)	6 (1.5)	6 (1.6)
Defense Lawyer	Credibility Divided	6 (1.8)	3 (2.3)	1 (2.0)
Plaintiff Lawyer	Credibility Divided	6 (1.9)	9 (2.0)	11 (1.5)

Note: The first column in each group represents the number of individual jurors selecting that attorney as the one they would choose to represent them in a court action but with cost ruled out as a consideration. The number in parenthesis indicates the degree of certainty of the jurors with (1.0) indicating very sure and (5.0) quite uncertain.

TABLE 4

RANKINGS OF DELIBERATION FACTORS BY JURORS UNDER VARYING CREDIBILITY CONDITIONS

Factor	Condition of Credibility					
	High Def. Before Delib.	Low Pltf. After Delib.	Low Def. Before Delib.	High Pltf. After Delib.	Def. & Pltf. Before Delib.	Low After Delib.
Personality of Defense Lawyer	11.5(2.8)	9(2.4)	7 (2.1)	6 (2.5)	9 (2.2)	10(2.3)
Personality of Plaintiff Lawyer	5 (1.6)	6(1.7)	3.5(2.2)	5 (2.1)	8 (1.5)	6(1.9)
Arguments of Defense Lawyer	8 (2.6)	11(2.5)	6 (2.9)	7.5(3.2)	5 (2.3)	9(1.4)
Arguments of Plaintiff Lawyer	6 (1.1)	4(1.4)	1 (1.5)	4 (1.8)	3 (1.5)	4(1.2)
Instructions of the Judge	7 (1.9)	7(1.5)	12 (1.7)	9.5(2.3)	12 (2.5)	11(1.7)
Plaintiff Lawyer Exhibits	1 (1.4)	3(1.0)	3.5(1.7)	1 (1.8)	4 (1.4)	1(1.2)
Defense Lawyer Exhibits	11.5(3.8)	14(2.4)	9.5(3.7)	12 (2.8)	10.5(2.3)	8(2.0)
Plaintiff's Expert Witnesses	2 (1.2)	1(1.3)	5 (1.8)	3 (1.7)	1 (1.8)	2(1.3)
Defense's Expert Witnesses	10 (2.8)	10(2.4)	8 (2.8)	13 (3.1)	7 (2.3)	7(1.7)
Plaintiff's Eyewitnesses	3 (1.1)	2(1.0)	2 (1.9)	2 (1.9)	2 (1.4)	3(1.3)
Plaintiff's Doctor Testimony	4 (1.4)	5(1.5)	9.5(1.9)	7.5(1.9)	6 (1.5)	5(1.3)
Summing Up of Attorneys	9 (1.5)	8(1.5)	11 (2.0)	11 (2.0)	10.5(2.2)	12(1.5)
Influence of Jury Foreman		12(1.8)		14 (2.7)		14(1.8)
Influence of Other Jurors		13(1.8)		9.5(2.1)		13(1.9)

TABLE 4 (continued)
RANKINGS OF DELIBERATION FACTORS BY JURORS UNDER VARYING CREDIBILITY CONDITIONS

Factor	Condition of Credibility					Divided Credib.	Divided Credib.
	High Def. Before Delib.	High Def. High Pltff. After Delib.	High Def. High Pltff. After Delib.	None	None		
Personality of Defense Lawyer	10 (3.0)	13 (2.5)	6 (2.5)	8 (2.5)	10 (2.9)	14 (2.7)	
Personality of Plaintiff Lawyer	5 (1.6)	7 (2.0)	4 (1.1)	6.5 (2.1)	9 (2.0)	10 (1.9)	
Arguments of Defense Lawyer	8 (3.2)	12 (3.1)	9 (2.9)	11 (2.6)	8 (3.1)	12 (2.5)	
Arguments of Plaintiff Lawyer	3 (1.6)	4 (1.6)	1 (1.4)	3 (1.1)	6 (2.2)	3 (2.1)	
Instructions of the Judge	12 (2.1)	14 (1.6)	11 (1.7)	10 (1.9)	7 (3.3)	4 (1.9)	
Plaintiff Lawyer Exhibits	4 (1.9)	3 (1.5)	5 (1.7)	5 (1.2)	3 (1.8)	1 (1.7)	
Defense Lawyer Exhibits	11 (3.3)	8.5 (2.5)	8 (3.7)	14 (2.0)	11 (3.2)	13 (1.7)	
Plaintiff's Expert Witness	1.5 (1.2)	2 (1.1)	2 (1.1)	1 (1.9)	1 (1.7)	2 (1.9)	
Defense's Expert Witness	7 (1.7)	10.5 (2.3)	10 (2.3)	9 (2.9)	12 (3.1)	9 (2.1)	
Plaintiff's Eyewitnesses	1.5 (1.3)	1 (1.1)	3 (1.1)	2 (1.3)	2 (1.4)	5.5 (2.1)	
Plaintiff's Doctor Testimony	6 (1.5)	5 (2.0)	7 (1.1)	4 (1.6)	5 (1.5)	7 (2.3)	
Summing Up of Attorneys	9 (1.7)	6 (1.7)	12 (1.4)	6.5 (1.5)	4 (1.3)	8 (1.9)	
Influence of Jury Foreman	-	10.5 (1.7)	-	13 (2.6)	-	11 (1.8)	
Influence of Other Jurors	-	8.5 (1.8)	-	12 (1.9)	-	5.5 (1.9)	

Note: The first column in each condition represents the rank of the factor in the collective judgment of the jurors with being the rank for the most important factor, etc. The number in parenthesis represents the degree of certainty of the jurors with (1.0) representing very sure and (5.0) quite unsure.

TABLE 5

CHANGES IN DELIBERATION FACTOR RANKINGS UNDER VARYING CREDIBILITY CONDITIONS

Deliberation Factor	Ranking and Condition of Credibility												Credibility			
	High Def-Low Pltf			Low Def-High Pltf			Both Low			Both High			Divided		None	
	Before Del	After Del	Del	Before Del	After Del	Del	Before Del	Aft Del	Del	Before Del	Aft Del	Del	Before Del	Aft Del	Before Del	Aft Del
Personality of Defense Lawyer	11.5	9		7		6	9	10	10	13		10	14	6	8	
Personality of Plaintiff Lawyer	5	6		3.5		5	8	6	5	7		9	10	4	6.5	
Arguments of Defense Lawyer	8	11		6		7.5	5	9	8	12		8	12	9	11	
Arguments of Plaintiff Lawyer	6	4		1		4	3	4	3	4		6	3	1	3	
Instructions of the Judge	7	7		12		9.5	12	11	12	14		7	4	11	10	
Plaintiff's Exhibits	1	3		3.5		1	4	1	4	3		3	1	5	5	
Defense Exhibits	11.5	14		9.5		12	10.5	8	11	8.5		11	13	8	14	
Plaintiff's Expert Witnesses	2	1		5		3	1	2	1.5	2		1	2	2	1	
Defense Expert Witness	10	10		8		13	7	7	11	8.5		12	9	10	9	
Plaintiff's Eyewitnesses	3	2		2		2	2	3	1.5	1		2	5.5	3	2	
Plaintiff's Doctor Testimony	4	5		9.5		7	6	5	6	5		5	7	7	4	
Summing Up of Attorneys	9	8		11		11	10.5	12	9	6		4	8	12	6.5	
Influence of Jury Foreman	-	12		-		14	-	14	-	10.5		-	11	-	13	
Influence of Other Jurors	-	13		-		9.5	-	13	-	8.5		-	5.5	-	12	

TABLE 6

MEAN RANKINGS OF FACTOR OF DELIBERATION

Deliberation Factor	Before Deliberations		After Deliberations	
	Mean Rank	Mean of Ranks	Mean Rank	Mean of Ranks
Personality of Defense Lawyer	8	8.9	10	10
Personality of Plaintiff Lawyer	5	5.8	6	6.8
Arguments of Defense Lawyer	7	7.3	12	10.2
Arguments of Plaintiff Lawyer	4	3.3	4	3.7
Instructions of the Judge	11	10.1	8	9.1
Plaintiff's Exhibits	3	3	2	2.4
Defense Exhibits	12	10.3	14	14
Plaintiff's Expert Witnesses	1	2	1	1.8
Defense Expert Witness	10	9.6	9	9.3
Plaintiff's Eyewitnesses	2	2.2	3	2.6
Plaintiff's Doctor Testimony	6	6.3	5	5.5
Summing Up of Attorney	9	9.3	7	8.7
Influence of Jury Foreman	-	-	13	12.4
Influence of Other Jurors	-	-	11	10.2

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